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U. S. PATENT and TRADEMARK OFFICE

10/018131

In Re Application of: Heinrich Wehberg

Application No: 10/018,131

Filed on: October 22, 2001

Title: Apparatus for Recording a Thermo-optical Image of the Female Breast



4/A  
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10/23/02

Assistant Commissioner for Patents  
Washington, DC 20231

### PRELIMINARY AMENDMENT

#### In the Specification

Delete the text on page 1 beginning with line 3, continuing through page 8, and substitute the following:

Like a fingerprint, the vascular pattern in the female breast is individual to every woman and under normal conditions, such patterns remain unchanged. Changes in the vascular pattern of a breast may indicate the presence of a mammary carcinoma or other disorder.

Most conventional methods for detecting and diagnosing mammary carcinomas within the framework of preventive medical examinations, most frequently mammography, incorporate the use of x-rays. These methods lead to a very limited radiation exposure for the patient. As a supplement to mammography, thermography can be used to diagnose mammary carcinomas using skin temperature.

The prior art includes various techniques for performing diagnosis of mammary carcinomas. In one group of methods, skin temperatures are directly measured on the breast. Optionally, such measurements can be further processed electronically. WO 79/00594 and U.S. Patent 3,970,074 disclose apparatuses in which the breast is pressed against a plate equipped with temperature sensors arranged in a matrix-like manner to measure skin temperature. The measured data are electronically processed and specific temperature distributions on the skin are used to indicate the presence of a mammary carcinoma. U.S. Patent 4,055,166 discloses a brassier, which is fitted with individual temperature sensors that monitor skin temperature

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